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Climate, Materials and Your Community Webinar
August 18, 2011



Climate Protection: A Materials Management Toolkit

www.captoolkit.wikispaces.com

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Overview of Toolkit

- Background & History
- Why an Online Toolkit?
- Components of the Toolkit
- Successes
- What's Next?
- Complementary Work

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History

- West Coast Forum on Climate & Materials Management, 2008-Present
- Local Accounting for Materials Management
- Inventory Workgroup
- California Air Resources Board Community Protocol



Background

- Developed by State and Local Partners of The Forum
- Dynamic, Pioneering Resource for State and Local Governments
- Menu of Approaches & Actions for Greenhouse Gas Reductions



State and Local GHG Reduction Plans

- Climate Action Plans
- Zero Waste Plans
- Sustainability Plans
- General Land Use & Transportation Plans



Climate Action Plans

- Catalyzing Event(s)
- Baseline Inventory
- Setting Targets
- Selecting & Implementing Actions
- Measuring Results



Toolkit Components

- ❖ Value/Importance of Materials Management to state and local governments
- ❖ GHG Inventory Options
- ❖ Setting Targets
- ❖ Actions to Reduce GHGs
- ❖ Measuring Results
- ❖ Example Climate Action Plans
- ❖ Resources, Glossary & Feedback

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Building the Toolkit

- Inventory Workgroup
- Electronic Platform

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Our Purpose - Reducing Greenhouse Gases through Materials Management

Materials Management strategies reduce greenhouse gas (GHG) emissions associated with waste, materials and products through a lifecycle and systems approach. These emissions contributed 42% to the U.S. greenhouse gas inventory in 2006.

This wiki is a materials management toolkit of:

- Climate Protection Actions
- Example Climate Action Plans
- New approaches to GHG Inventories
- Measurement Tools
- Links to resources
- And more...see links at left

Help us improve this toolkit with your feedback and let us know what materials management approaches you are adding to your Climate Action Plan.

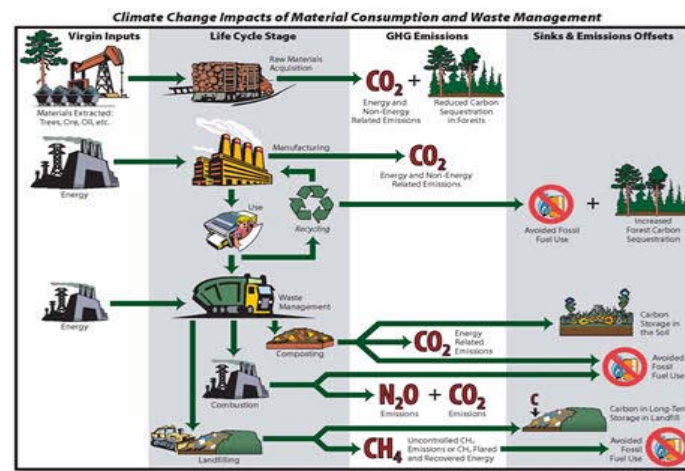
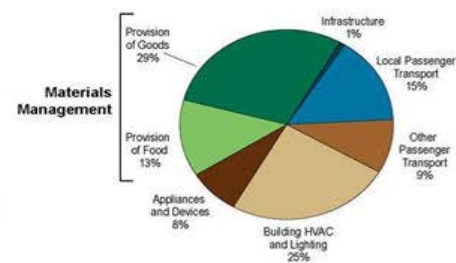
Who Should Use This Toolkit

- State and Local Government Climate Change Staff
- Recycling, Composting and Solid Waste Professionals
- Sustainability and Pollution Prevention Coordinators
- Climate Action Plan Coordinators
- Greenhouse Gas Inventory Staff
- Public Outreach Staff

Click here for [How to Use This Toolkit](#)

This toolkit is a product of the West Coast Climate and Materials Management Forum. The Forum was convened in 2008 by U.S. Environmental Protection Agency Regions 9 and 10, and is a partnership of federal, state and local government stakeholder from the western states committed to advancing materials management strategies to reduce GHG emissions. For more information see [Forum website](#)

**Systems-Based GHG Inventory
US (Domestic) Emissions, 2006**



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August 18, 2011



Why Include Materials Management in Climate Action Plans and Greenhouse Gas Inventories

Materials Management refers to how we manage material resources as they flow through the economy, from extraction or harvest of materials and food, production and transport of goods, provision of services, reuse of materials, recycling, composting, and disposal. Approximately 42% of GHG emissions in the U.S. are associated with these activities (see [Opportunities to Reduce Greenhouse gas Emissions through Materials and Land Management Practices](#)). Materials management policies and programs designed to reduce these emissions can therefore play a significant role in federal, state and local climate change strategies. Materials management strategies are smart investments for state and local governments seeking to reduce GHG emissions.

To realize these GHG reduction opportunities, state and local governments need to change the way they approach conducting GHG emission inventories and incorporate new approaches into Climate Action Plans. A limited number of state and local governments have already adopted materials management strategies and a number of their approaches are described in this toolkit. In the near future, many state and local jurisdictions will be developing or updating a GHG Inventory and Climate Action Plan and outlining climate protection action steps to be taken.

Table of Contents

- [The Importance of Materials Management: What Systems-based GHG Accounting Shows](#)
- [Benefits of Materials Management Policies and Programs in Climate Action Plans](#)
- [Sustainable Production and Consumption](#)
- [Product Stewardship](#)
- [Source Reduction and Reuse](#)
- [Recycling and Composting](#)

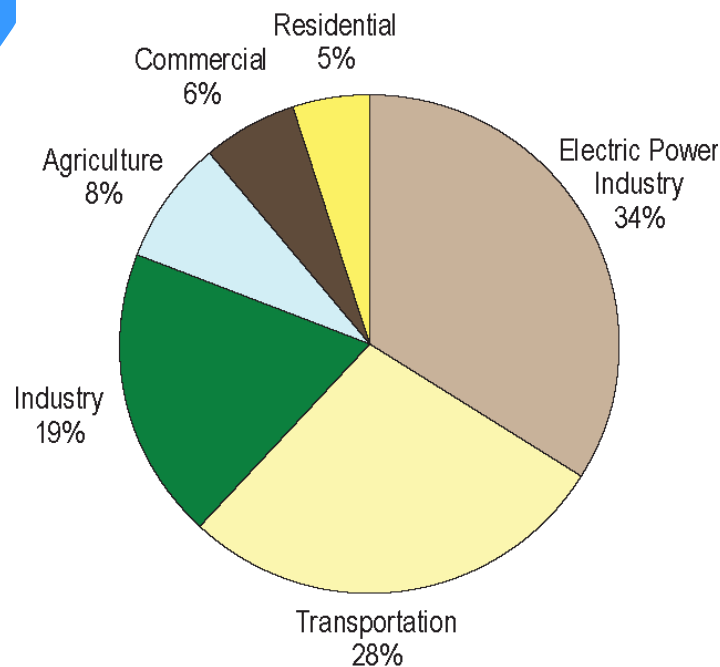
The Importance of Materials Management: What Systems-based GHG Accounting Shows

The conventional lens through which greenhouse gas emissions are viewed is through the economic sectors in which they are released. By allocating emissions to economic sectors, the vast majority of greenhouse gas emissions appear to occur in the electric power, transportation, and industrial sectors (34, 28, and 19 percent of emissions, respectively; EPA 2005). This view suggests that these three sectors are the most important to control in order to reduce overall emissions and address climate change. In sector-based GHG accounting "waste" appears as an almost trivial slice of the pie, if it appears at all (it is sometimes embedded in a sector called "commercial"). Local policy makers, planning staff, and citizen advisory groups examine these charts and quickly determine that "waste" and all the activities typically associated with traditional "waste" management are inconsequential for addressing greenhouse gas emissions, as they only represent 1 to 5 percent of the total emissions.

On the other hand, if we view the impacts of goods and materials through the life cycle of extracting raw materials, processing, manufacturing, transporting, using, and disposing of products, a different picture emerges. In a September 2009 report, [Opportunities to Reduce Greenhouse gas Emissions through Materials and Land Management Practices](#), USEPA employed such a "systems-based" method of allocating GHG emissions. This method is "helpful for framing opportunities to reduce greenhouse gas emissions through prevention-oriented mitigation strategies that act across an entire system." The EPA Report reveals that 29 percent of United States total greenhouse gas emissions result from the provision of goods produced within the US. "Goods" includes all consumer products and packaging, including building components and passenger vehicles, but exclude food. The provision of food contributes another 13%. "Provision" includes all activities from resource extraction, manufacturing, and transport to final disposal, but excludes use. So the production, transport, and disposal of stuff ("goods" and "food") contribute 42% to the nation's GHG inventory. The remainder of the emissions is mostly associated with the use of goods: appliances and devices (8%), building lighting and HVAC (25%), and transportation of people (24%).

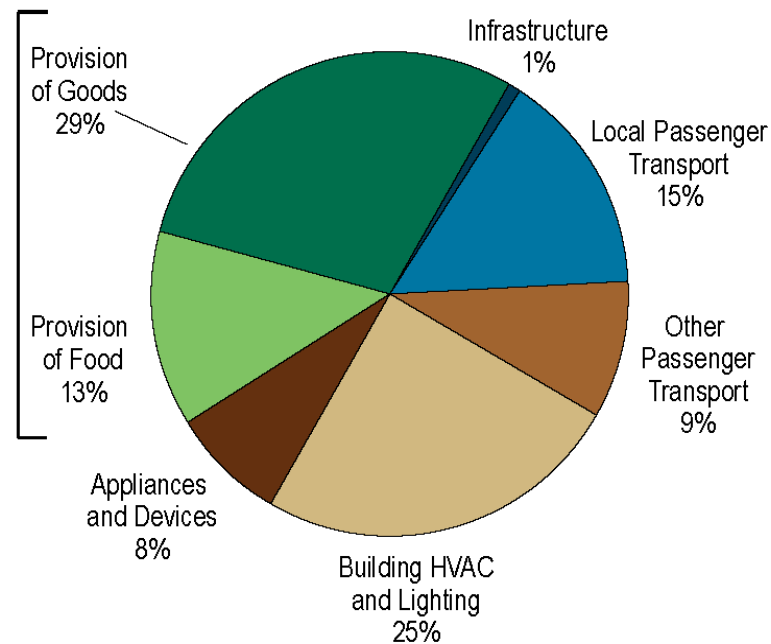
Two Ways of Looking at GHG Emissions

Sector-Based GHG Inventory
US (Domestic) Emissions, 2006



Systems-Based GHG Inventory
US (Domestic) Emissions, 2006

Materials Management





Benefits of Materials Management Policies & Programs in Climate Action Plans

- Inclusion of disparate sustainability policies
- Faster and cheaper progress in reducing GHG
- State and local governments have unique leverage
- Increases reuse, recycling, and composting
- Offers new product stewardship initiatives
- Increases local businesses and jobs.

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Inventories

- How they're used
- Establishing a baseline
- How conventional inventories treat waste and materials
- Conventional and alternative inventory methods



Setting an Emissions Reductions Target

- The link between inventories & targets
- Methodologies
 - Broad or specific approaches
- Tools
 - EPA's WARM Tool
 - ICLEI CAPP Tool
 - LCAs

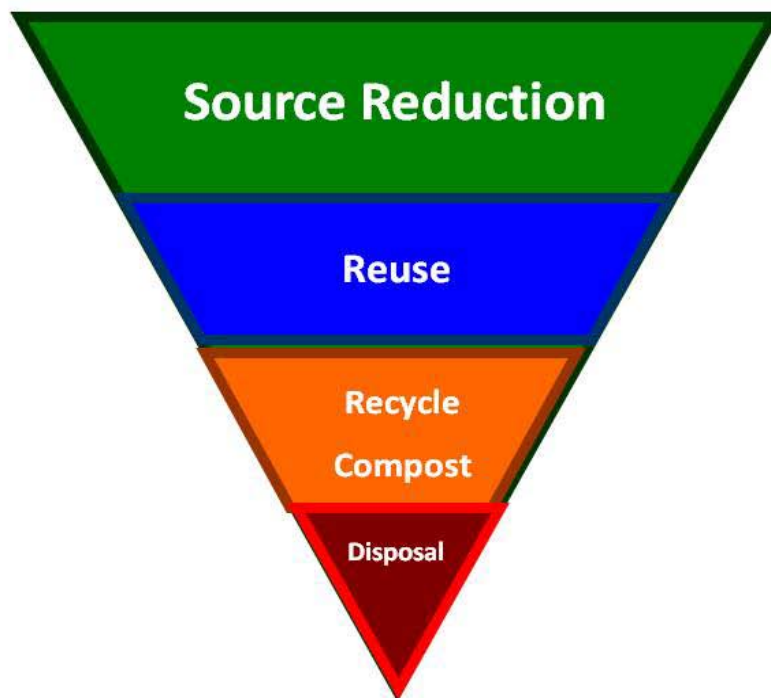


Taking Action Page

- Hotlinks
- Climate Action Examples
 - Policies & Programs
- Climate Action Plan Examples
 - State & Local Plans

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Actions to Reduce GHGs

- Commercial recycling ordinance & programs
- Green procurement policies
- Programs and education that foster a better consumption choices
- Food waste reduction & composting programs
- Product Stewardship & Carbon Footprinting
- Green Building



Measuring Results

- Tools: WARM
- LCAs: EIO & Process
- Quantitative results may or may not be included in inventory



What's Next for the Toolkit

- Migrations to new website: Fall 2011
- New Climate Action Plans added
- Best practices for materials management inventories
- Best practices for materials management climate actions

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Additional Features of the Toolkit

- Glossary
- References
- We Want to Hear From You

CRRA 35th Annual Conference

Zero Waste: Ride the Wave to Sustainability



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- Questions?
- Want to add a plan or actions?

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